



PJM Interconnection
2750 Monroe Blvd
Audubon, PA 19403

Manu Asthana
President and CEO
manu.asthana@pjm.com

December 24, 2022

The Honorable Jennifer Granholm
Secretary of Energy
United States Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585-1000

Re: Request for Emergency Order Under Section 202(c) of the Federal Power Act

Dear Secretary Granholm:

Pursuant to Section 202(c) of the Federal Power Act (“FPA”) and part 205, subpart W, of the regulations of the Department of Energy (“DOE” or “Department”), PJM Interconnection, L.L.C. (“PJM”) respectfully requests that the Secretary of Energy (“Secretary”) find that an electric reliability emergency exists within the PJM Region that requires intervention by the Secretary, in the form of a Section 202(c) emergency order, to preserve the reliability of the bulk electric power system. PJM respectfully requests that the Secretary issue an order immediately, effective today, December 24, 2022, authorizing all electric generating units located within the PJM Region to operate up to their maximum generation output levels under the limited circumstances described in this letter, notwithstanding air quality or other permit limitations.

In accordance with 10 C.F.R. § 205.391(a), PJM requests that such order be entered as soon as possible today, December 24, 2022, to be made effective as of the date of issuance. PJM further requests that the order remain effective through 12:00 p.m. Eastern Standard Time (EST) on Monday, December 26, 2022. Such order need only be effective during the pendency of any PJM issued Energy Emergency Alert (EEA) Level 2¹ or Level 3 (during which time PJM will have triggered at Maximum Generation Emergency Action), except as otherwise provided herein in certain limited circumstances in anticipation of an EEA Level 2 or above. PJM is requesting the Department issue an order for this duration with this limiting condition because PJM anticipates unusually high load forecasts through the evening of December 25, 2022 (approximately 122,000 MW) and the morning of December 26, 2022 (approximately 112,000 MW).

Background

PJM is one of many regions across the country currently being impacted by a severe winter weather system. Across the PJM Region, this weather system caused a significant drop in temperatures yesterday, accompanied by high winds in excess of 40 mph. As a consequence of

¹ All references to EEA Level 2 in this submission should be construed to include higher EEA levels.

the impact of wind and decreasing temperatures, the demand for electricity in PJM rose to an unusually high peak load on the evening of December 23, 2022, in excess of 135,000 MW. This severely cold weather is expected to last through Monday morning.

While the vast majority of generating units in the PJM Region continue to function adequately under these stressed conditions, some units have experienced operating difficulties due to cold weather or fuel limitations, primarily gas. Specifically, approximately 45,000 MW of generating units (the majority of which is thermal) are currently outaged or derated. It is possible that some of these units will be unable to return to service over at least the next 48 hours, which coincides with the time period for the order PJM is requesting here. Since these units may not promptly return to service, and in the event PJM experiences additional generating unit outages, it is possible that PJM may need to curtail some amount of firm load on December 24, 2022, December 25, 2022, and December 26, 2022 in order to maintain the security and reliability of the PJM system.

PJM is taking measures to ensure the supply of generation will continue to be sufficient to meet system demand and reserve requirements. On December 20, 2022, PJM issued a cold weather advisory in the PJM Region in anticipation of the forecasted weather conditions. Then on December 23, 2022, PJM issued a PJM Region-wide cold weather alert² which further highlighted PJM's expected need to call higher-than-normal generation resources in light of the anticipated weather.

On December 23, 2022, generating reserves diminished to a level that required PJM to declare an Energy Emergency Alert (EEA) and take other emergency actions. After having exhausted economic options, PJM triggered a Maximum Generation Emergency Action to increase the PJM Region generation above the maximum economic level. Further, PJM

² The full text of PJM's December 23 region-wide cold weather alert is as follows:

A Cold Weather Alert has been issued from 00:00 on 12.24.2022 through 23:59 on 12.25.2022 Per M-13, members are expected to perform the following:

TRANSMISSION/GEN DISPATCHERS review plans to determine if any maintenance/testing, scheduled/being performed, on any monitoring, control, transmission/generating equipment can be deferred/canceled.

GEN DISPATCHERS:

- Review & update unit parameters in Markets Gateway (MG) through the Cold Weather Alert period paying particular attention to accurate Start-up & Notification, Min/Max Run Time, Eco Min/Max and Emergency Min/Max.
- Submit alternate fuel capability & resource limitations via MG. -Review fuel supply/delivery schedules for greater than normal operation of units.
- Provide PJM with estimate of time needed to return any unit on a Planned Outage. This 'Early Return Time' should be updated in eDART & will not affect the Planned Outage est. end date.
- Dual fuel units, confirm equipment is functional & amount of alternate fuel available.
- Update PLS schedule parameters as indicated in Manual 11 Section 2.3.4.

Additional Comments: Forecasted low temperatures range from -1F to 9F across the RTO.

triggered its load management reduction actions to provide additional load relief by using PJM-controllable load management programs. For example, PJM called upon demand response providers and curtailment service providers to reduce load. PJM has also issued public appeals for consumers to reduce usage. PJM has continued to employ these emergency actions through December 24, 2022 and anticipates needing to continue them through the order end date requested here.

Since December 23, 2022, PJM has also taken additional measures to provide additional reserves, including:

- PJM reduced exports to neighboring regions and requested shared reserves from our neighboring regions – importantly, consistent with joint operating agreements and other regulatory requirements, PJM has continued to communicate and collaborate with its interconnected neighboring systems when the demand on the PJM system has exceeded expected energy and reserve requirements and when emergency transfers were required to support PJM’s interconnected neighboring systems;
- Issuing additional public conservation appeals;
- Running uneconomic generation during lower load periods to ensure their availability during peak conditions;
- Utilizing the above noted Emergency Procedures to assist in maximizing the pumped storage hydro generation levels;
- Communicated and prepared transmission and distribution service providers to implement distribution voltage reduction measures; and
- Communicated and prepared transmission and distribution service providers to implement firm load shed.

Subject to the exceptions requested herein, PJM commits to continuing to take such actions, including utilizing other supply resources, before calling upon any generators to operate in excess of permitting levels. Even so, it is possible that these measures may not be sufficient to avoid the need to curtail firm load to ensure system reliability.

Relief Requested

PJM has been notified by multiple generation owners that some of their generating units are currently limited in their power output due to emissions, effluent, and other limits established by federal environmental permits and state requirements, or that, due to continuing cold weather conditions, may become subject to such operational limitations. These units are described in Exhibit A to this letter.³ Specifically, PJM has been informed that the operation of these

³ In the event that PJM identifies additional generation units that it deems necessary to operate in excess of federal environmental permitting limits in order to maintain the reliability of the power grid in the PJM Region when the demand on the PJM system exceeds expected energy and reserve requirements, PJM shall provide prompt written notice to the Department of Energy at AskCR@hq.doe.gov with the name and location of those units that PJM has identified, as well as notice by the same means as an updated Exhibit A to its Application such additional generation units, the fuel type of such unit, and the anticipated category of environmental impact, at 11:00 Eastern

generators is or may be impacted by permit restrictions on sulfur dioxide, nitrogen oxide, mercury, carbon monoxide, wastewater release, and other air pollutants (including ammonia).

While multiple entities have confirmed an operational limitation based on emissions restrictions, PJM is also aware that many other generators not included on this list are subject to similar federal permit limits and state requirements, and it is possible that some of these units could encounter an operational limitation due to a restriction under a federal environmental permit or state requirement at some point before 12:00 p.m. Eastern Standard Time (EST) on Monday, December 26, 2022. Because the output from all of the generators subject to these restrictions would help to reduce the need for any firm load shedding that may be required during this extreme cold weather event, PJM seeks an immediate order from DOE authorizing the provision of additional energy from the units identified in Exhibit A, as well as any other generating units subject to emissions or other permit limitations. This relief would be available only under the following limited circumstances:

- For any generation resource whose operator notifies PJM that the unit is unable, or expected to be unable, to produce at its maximum output due to an emissions or other limit in any federal environmental permit at any point on or after the date of issuance of this order for the time requested and during the pendency of a PJM-triggered Maximum Generation Emergency Action, the unit will be allowed to exceed any such limit only during any period for which PJM has declared an Energy Emergency Alert (EEA) Level 2 or Level 3 (during which time PJM will have triggered a Maximum Generation Emergency Action), except as described in the third bullet below in certain limited circumstances in anticipation of an EEA Level 2 or above. Once PJM declares that the EEA Level 2 (or above) event has ended and the Maximum Generation Emergency Action is discontinued, the unit would be required to immediately return to operation within its permitted limits, except for the limited exceptions provided herein for operation in anticipation of a EEA Level 2 to prevent the cycling of units or facilitate the charging or pumping of other resources necessary for the EEA Level 2 (or above level). And at all other times, the unit would be required to operate within its permitted limits.
- For any generation resource whose operator notifies PJM that the unit is offline or would need to go offline at any point on or after the date of issuance of this order for the time requested and during the pendency of a PJM-triggered Maximum Generation Emergency Action, due to an emissions or other limit in any federal environmental permit, PJM may direct the unit operator to bring the unit online, or to keep the unit online, and to operate at the level consistent with their permits subject to the exceptions requested herein. In this

Standard Time or 21:00 Eastern Standard Time, whichever follows closest in time to the unit identification by PJM to the greatest extent feasible.

PJM requests that such additional generation units be deemed a resource covered by any order for the hours prior to the required written notice to the Department. PJM further requests that it dispatch such additional generation units, provided that if the Department of Energy notifies PJM that it does not approve of such generation unit being designated as a resource covered by any order, such generation unit shall not constitute a covered resource upon notification from the Department.

circumstance, the operator would be allowed to make all of the unit's capacity available to PJM for dispatch during any period for which PJM has declared an Energy Emergency Alert (EEA) Level 2 or Level 3 (during which time PJM will have triggered at Maximum Generation Emergency Action) except as described in the third bullet below in certain limited circumstances in anticipation of an EEA Level 2 or above level. Once PJM declares that such an EEA Level 2 (or higher) event has ended and the Maximum Generation Emergency Action is discontinued, the unit would be required to immediately return to operating at a level below the higher of its minimum operating level or the maximum output allowable under the permitted limit.

- Exception: PJM seeks authority to operate the Specified Units in certain limited circumstances in advance of declaring an Energy Emergency Alert (EEA) Level 2, Maximum Generation Emergency, or in between such events, where such operation or continued operation of the Specified Resource is reasonably necessary to avoid shutting down and restarting the Specified Unit, because such cycling of units can cause reliability issues regarding restarting, delays, and increased emissions during start up. PJM further seeks authority to operate the Specified Units in certain limited circumstances in anticipation of declaring an Energy Emergency Alert (EEA) Level 2, Maximum Generation Emergency where such operation or continued operation of the Specified Resource is reasonably necessary to facilitate charging storage resources or pumping for pumped storage facilities that will be needed during the EEA Level 2 (or higher level). PJM commits to take measures to dispatch units for which cycling would otherwise be required in a manner reasonably intended to limit the duration and operating level of those units in such a way as to minimize exceedance of permit limitations consistent with the security and reliability of the PJM Region.
- To minimize adverse environmental impacts as set forth herein, this Order limits operation of dispatched units to the times and within the parameters determined by PJM for reliability purposes. Consistent with good utility practice, PJM shall exhaust all reasonably and practically available resources, including available imports, demand response and identified behind-the-meter generation resources selected to minimize an increase in emissions to the extent that such resources provide support to maintain grid reliability prior to dispatching the Specified Resources at levels above their permitted emissions levels. PJM shall provide a daily notification to the Department by email to AskCR@hq.doe.gov reporting each generating unit that has been designated to use the allowance and operated in reliance on the allowances contained in this Order.
- PJM commits to the same reporting requirements set forth in paragraphs E and F of Department of Energy Order No. 202-22-3 (December 23, 2022 at 21:30 Eastern Standard Time), except that PJM shall provide information to the Department quantifying the revenue in aggregate associated with generation in excess of environmental limits in connection with orders issued by the Department pursuant to section 202(c) of the Federal Power Act.

PJM does not lightly request this authorization. It understands the importance of the environmental permit limits that are at issue. However, in PJM's judgment, the loss of power to homes and local businesses in the areas that may be affected by curtailments presents a far greater risk to public health and safety than the temporary exceedances of those permit limits that would be allowed under the requested order. Authorizing resources in the PJM Region to operate notwithstanding permit and other limitations will help ensure PJM can meet its energy and reserve requirements.

This request is narrowly tailored to allow only the exceedances that are necessary to ensure reliability during the limited timeframe of this request. Limiting the requested allowance to situations involving an EEA Level 2 or higher (during which time PJM will have triggered at Maximum Generation Emergency Action) will ensure that the generation capacity subject to emissions limits and other permit restrictions will be the last generation that is made available for dispatch to meet system demand, thus minimizing any environmental impact to the greatest degree possible. Except as requested in the limited exception set forth herein, it should also be noted that if any generation is called upon in excess of permitting limits, such generation will not displace more economic units because such Maximum Generation Emergency units will only run until after the less costly units operating within permitting levels are run.

PJM is notifying its members that this emergency request is being submitted to the Department of Energy. Further, on the date of issuance of the requested order, PJM would issue a market notice to all PJM market participants including a copy of any Department Order and describing the conditions of this allowance. The notice would require that any market participant that finds it necessary to utilize this allowance must notify PJM in advance of doing so, to ensure PJM's operators are aware the capacity is available during an EEA Level 2 or higher. This notification requirement would apply to all generators, including those identified on Exhibit A. PJM commits to providing notice to the Department of Energy at or before at 11:00 Eastern Standard Time or 21:00 Eastern Standard Time on December 24, 2022, December 25, 2022, and December 26, 2022 of each of those generating units that has been designated to use this allowance.

PJM is also prepared to provide any additional information DOE may request through necessary collaboration with generation resource owners, including information about the quantification of exceedances of environmental limits by units that invoke the authorization available under this order. PJM commits to respond to any requests for additional information on an expedited basis.

PJM greatly appreciates the Department of Energy's expedited consideration of this request. Please do not hesitate to contact me or my staff if you have any questions or require additional information in order to act on this request.

The Honorable Jennifer Granholm

December 24, 2022

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Respectfully submitted,

/s/ Manu Asthana

Manu Asthana

Chief Executive Officer and President

PJM Interconnection, L.L.C.

Enclosure: Exhibit A

cc:

Craig Glazer
Vice President – Federal Government
Policy PJM Interconnection, L.L.C.
1200 G
Street, N.W.
Suite 600
Washington, DC
20005
(202) 423-4743
craig.glazer@pjm.com

Christopher O'Hara
Senior Vice President, General Counsel,
& Chief Compliance Officer
PJM Interconnection, L.L.C.
2750 Monroe Blvd
Audubon, PA 19403
(610) 635-3433
christopher.ohara@pjm.com

Steven R. Pincus
Associate General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd
Audubon, PA 19403
(610) 666-4370
steven.pincus@pjm.com

Mark J. Stanisz
Assistant General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd
Audubon, PA 19403-2497
(516) 987-2021
mark.stanisz@pjm.com

Exhibit A

RESOURCE NAME	FUEL TYPE	LOCATION	NAMEPLATE	RESTRICTION
Troy Energy (LS Power)	Dual – Natural Gas/Fuel Oil	Luckey, Ohio	776 MW	NOx hourly emissions limit
Bethlehem Energy (Calpine)	Dual – Natural Gas/Fuel Oil	Bethlehem, PA	1130 MW	Time limitation for fuel oil, NOx, CO
York Energy (Calpine)	Dual – Natural Gas/Fuel Oil	Peach Bottom Township, PA	565 MW	Time limitation for fuel oil, NOx, CO
York Energy 2 (Calpine)	Dual – Natural Gas/Fuel Oil	Peach Bottom Township, PA	828 MW	Time limitation for fuel oil, NOx, CO